Product

Print Date 02/14/2019 Page 1 (11)

SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Product name :

SDS Number : 300000506351

Product Use Description : Fragrance Ingredient

Company :

Telephone : Telefax :

Emergency telephone number :

SECTION 2 HAZARDS IDENTIFICATION

GHS-Classification

Skin irritation, Category 2 Eye irritation, Category 2A

GHS-Labelling

Symbol(s)



Signal word : Warning

Hazard statements : H315: Causes skin irritation.

H319: Causes serious eye irritation.

Precautionary statements : P280: Wear protective gloves/ eye protection/ face protection.

P302 + P352: IF ON SKIN: Wash with plenty of soap and water.

Version : 1

Product

Print Date 02/14/2019 Page 2 (11)

P305 + P351 + P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Carcinogenicity:

No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

No component of this product present at levels greater than or equal to 0.1% is on OSHA's list of regulated carcinogens.

No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous components

Component	CAS-No.
CYCLOHEXANOL, 5-ETHYLIDENE-2-PROPOXY-, CYCLOHEXANOL, 4-ETHYLIDENE-2-PROPOXY-, CYCLOHEXANOL, 4-ETHYLIDENE-2-PROPOXY-, CYCLOHEXANOL, 5-ETHYLIDENE-2-PROPOXY-	1631145-49-7, 1631145- 48-6, 2101609-63-4, 2101609-62-3
Benzenepropanoic acid, 3,5-bis(1,1-dimethylethyl)-4-hydroxy-, methyl ester	6386-38-5

SECTION 4. FIRST AID MEASURES

First aid procedures

Inhalation : Remove from exposure site to fresh air and keep at rest. If victim is

unconscious, remove foreign bodies from the mouth. If victim has stopped breathing, give artificial respiration. Obtain medical advice.

Skin contact : Remove contaminated clothes. Wash thoroughly with water (and

Version : 1



Product

Print Date 02/14/2019 Page 3 (11)

soap). Contact physician if symptoms persist.

Eye contact : Flush immediately with water for at least 15 minutes. Contact

physician if symptoms persist.

Ingestion : Rinse mouth with water and obtain medical advice.

SECTION 5. FIREFIGHTING MEASURES

Flammable properties

Flash point : $201.20 \,^{\circ}\text{F} (94.00 \,^{\circ}\text{C})$

Fire fighting

Suitable extinguishing media : Use water spray, dry chemical, carbon dioxide or appropriate foam.

Protective equipment and precautions for firefighters

Special protective equipment for

firefighters

: Wear NIOSH approved self-contained breathing apparatus and full protective clothing when fighting fires involving chemicals. Use

water spray to cool containers exposed to fire.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions : Avoid inhalation and contact with skin and eyes. A self-contained

breathing apparatus is recommended in case of a major spill.

Environmental precautions : Keep away from drains, surface- and groundwater and soil.

Methods for containment / : Clean up spillage promptly. Remove ignition sources. Provide

Version : 1



Product

Print Date 02/14/2019 Page 4 (11)

Methods for cleaning up

adequate ventilation. Avoid excessive inhalation of vapours. Gross spillages should be contained by use of sand or inert powder and disposed of according to the local regulations.

SECTION 7. HANDLING AND STORAGE

Handling

Avoid excessive inhalation of concentrated vapors. Follow good manufacturing practices for housekeeping and personal hygiene. Wash any exposed skin immediately after any chemical contact, before breaks and meals, and at the end of each work period. Contaminated clothing and shoes should be thoroughly cleaned before re-use.

If appropriate, procedures used during the handling of this material should also be used when cleaning equipment or removing residual chemicals from tanks or other containers, especially when steam or hot water is used, as this may increase vapor concentrations in the workplace air. Where chemicals are openly handled, access should be restricted to properly trained employees.

Keep all heated processes at the lowest necessary temperature in order to minimize emissions of volatile chemicals into the air.

Advice on protection against fire and explosion

Keep away from ignition sources and naked flame.

Requirements for storage areas and : containers

Store in a cool, dry, ventilated area away from heat sources. Keep containers upright and tightly closed when not in use.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

Engineering measures

Version : 1



Product

Print Date 02/14/2019 Page 5 (11)

Engineering measures

: Where feasible, isolate mixing rooms and other areas where this material is used or openly handled. Maintain these areas under negative air pressure relative to the rest of the plant.

Where feasible, use closed systems to transfer and process this

material

Personal protective equipment

Eye protection

: Use tight-fitting goggles, face shield or safety glasses with side shields if eye contact might occur.

Hand protection

: Avoid skin contact. Use chemically resistant gloves.

Respiratory protection

: Use local exhaust ventilation around open tanks and other open sources of potential exposures in order to avoid excessive inhalation, including places where this material is openly weighed or measured. In addition, use general dilution ventilation of the work area to eliminate or reduce possible worker exposures.

No respiratory protection is required during normal operations in a workplace where engineering controls such as adequate ventilation, etc. are sufficient.

If engineering controls and safe work practices are not sufficient, an approved, properly fitted respirator with organic vapor cartridges or canisters and particulate filters should be used:

a) while engineering controls and appropriate safe work practices and/or procedures are being implemented; or

b)during short term maintenance procedures when engineering controls are not in normal operation or are not sufficient; or c)if normal operational workplace vapor concentration in the air is increased due to heat;

d)during emergencies; or

e)if engineering controls and operational practices are not sufficient to reduce airborne concentrations below an established occupational exposure limit.

Version :

Revision Date : 02/14/2019

Telephone: Telefax:

Product

Print Date 02/14/2019 Page 6 (11)

Hygiene measures

: To the extent deemed appropriate, implement pre-placement and regularly scheduled ascertainment of symptoms and spirometry testing of lung function for workers who are regularly exposed to this material.

To the extent deemed appropriate, use an experienced air sampling expert to identify and measure volatile chemicals that could be present in the workplace air to determine potential exposures and to ensure the continuing effectiveness of engineering controls and operational practices to minimize exposure.

Protective measures

: In December 2003, the National Institute for Occupational Safety and Health ("NIOSH") published an Alert on preventing lung disease in workers who use or make flavorings [NIOSH Publication Number 2004-110].

In August 2004, the United States Flavor and Extract Manufacturers Association (FEMA) issued a report entitled "Respiratory Safety in the Flavor Manufacturing Workplace".

Both of these reports provide recommendations for reducing employee exposure and for medical surveillance in the workplace. The recommendations in these reports are generally applicable to the use of any chemical in the workplace and you are strongly urged to review both of these reports.

The report published by FEMA also contains a list of "high priority" chemicals. If any of these chemicals are present in this product at a concentration >= 1.0% due to an intentional addition by IFF, the chemical(s) will be identified in this safety data sheet.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance

Physical state : liquid Appearance : LIQUID

Colour : colorless to pale yellow

Version : 1



Product

Print Date 02/14/2019 Page 7 (11)

Odour : conforms to standard

Safety data

Flash point : 201.20 °F (94.00 °C)

Freezing point : <-4 °F (<-20 °C)

Method: OECD Test Guideline 102

Boiling point : $480 \,^{\circ}\text{F} \, (249 \,^{\circ}\text{C})$

at 1,028.00 hPa (1,028 hPa)

Method: OECD Test Guideline 103

Vapour pressure : .09 hPa (0.09 hPa)

Relative density (20 °C) : 0.5025 - 1.9965

Water solubility : 5.198 g/l

at 68 °F (20 °C)

Method: OECD Test Guideline 105

Partition coefficient: n-octanol/water : log Pow: 2.46

Method: OECD 117

Surface tension : 53 mN/m

at 68 °F (20 °C) Method: OECD 115

SECTION 10. STABILITY AND REACTIVITY

Conditions to avoid : Remarks: Direct sources of heat.

Chemical stability : Remarks: Presents no significant reactivity hazard, by itself or in

contact with water. Avoid contact with strong acids, alkali or

Version : 1



Product

Print Date 02/14/2019 Page 8 (11)

oxidizing agents.

Hazardous decomposition products : Note: Carbon monoxide and unidentified organic compounds may

be formed during combustion.

SECTION 11. TOXICOLOGICAL INFORMATION

Acute oral toxicity : Acute toxicity estimate

Dose: 2,500 mg/kg

Method: Calculation method

Acute oral toxicity (Component) : Component: 1631145-49-7

LD50 Oral Rat Dose: > 2,000 mg/kg

Method: OECD Test Guideline 423

Acute dermal toxicity : Acute toxicity estimate

Dose: 2,500 mg/kg

Method: Calculation method

Acute dermal toxicity : Component: 1631145-49-7

(Component)

LD50 Rat

Dose: > 2,000 mg/kg

Method: OECD Test Guideline 402

Acute inhalation toxicity

(Component)

Component: 1631145-49-7

LC50 Rat

Exposure time: 4 h Dose: > 5.3 mg/l

Method: OECD Test Guideline 403

Skin irritation (Component) : Component: 1631145-49-7

reconstructed human epidermis (RhE)

Result: not corrosive Method: OECD 431

Version : 1

Revision Date : 02/14/2019

Telephone: Telefax:

Product

Print Date 02/14/2019 Page 9 (11)

reconstructed human epidermis (RhE)

Result: irritating Method: OECD 439

Eye irritation(Component) : Component: 1631145-49-7

Rabbit

Result: Moderate eye irritation Method: OECD Test Guideline 405

Bovine cornea

Method: OECD Test Guideline 437

Sensitisation (Component) : Component: 1631145-49-7

LLNA Mouse

Result: causes no sensitization

Method: OECD 429 Test substance: 100%

repeated insult patch test human Result: causes no sensitization

Test substance: 5.0% in DEP:Ethanol (3:1)

Repeated dose : Component: 1631145-49-7

toxicity(Component)

OralRat

NOAEL: 894 mg/kg

Method: OECD Test Guideline 422

OralRat

NOAEL: 870 mg/kg

Method: OECD Test Guideline 422

Target Organ: Liver

Symptoms: Liver effects (liver weight increase)

SECTION 12. ECOLOGICAL INFORMATION

Component:

1631145-49-7 VERASPICE <u>Toxicity to fish:</u>

Version : 1



Product

Print Date 02/14/2019 Page 10 (11)

NON TSCA LC50 USE ONLY Species: Fish

Dose: 125 mg/l

Toxicity to daphnia and other aquatic invertebrates:

Immobilization EC50

Species: Daphnia magna (Water flea)

Dose: > 100 mg/l Exposure time: 48 h

Method: OECD Test Guideline 202

<u>Toxicity to algae:</u> Growth inhibitionErC50

Species: Pseudokirchneriella subcapitata (green algae)

Dose: > 100 mg/l Exposure time: 72 h

Method: OECD Test Guideline 201

SECTION 13. DISPOSAL CONSIDERATIONS

Contaminated packaging : Place material into sealed containers and dispose of in accordance

with local, state and federal regulations.

SECTION 14. TRANSPORT INFORMATION

DOT Not dangerous goods

IATA Not dangerous goods

IMDG Not dangerous goods

Version : 1





Product

Print Date 02/14/2019 Page 11 (11)

SECTION 15. REGULATORY INFORMATION

SARA 311/312 Hazards : Acute Health Hazard

Reportable Quantity :

HMIS Classification : Health hazard: 2

Flammability: 1

Physical and chemical hazards: 0

EPA identified the following hazard concerns for the chemical substance (component: 1631145-49-7): potential liver effects in rats.

SECTION 16. OTHER INFORMATION

Further information

The information in this MSDS was obtained from current and reliable sources. However the data is provided without any warrant, expressed or implied, regarding its correctness or accuracy. Since the use, handling, storage and disposal of this product are beyond IFF control, it is the responsibility of the user both to determine safe conditions for the use of this product and to assume liability of loss, damage, or expense arising out of the product's improper use. No warranty expressed or implied regarding the product described herein shall be created by or inferred from any statement or omission in this MSDS. Various Federal, State or Provincial agencies may have specific regulations concerning the transportation, handling, storage, use, or disposal of this product which may not be reflected in this MSDS. The user should review these regulations to ensure full compliance.

Version : 1

